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AUG 31 2005

PATENT APPLICATION

ATTORNEY DOCKET NO. 10002500-2

IN THE  
UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Ian P. Schaeffer et al.

Confirmation No.:

Application No.: 10/654,177

Examiner: Jonathan Johnson

Filing Date: Sept. 3, 2003

Group Art Unit: 1725

Title: A METHOD OF FABRICATING A SUBSTANTIALLY ZERO SIGNAL DEGRADATION  
ELECTRICAL CONNECTION ON A PRINTED CIRCUIT BOARD

Mail Stop Amendment  
Commissioner For Patents  
PO Box 1450  
Alexandria, VA 22313-1450

## TRANSMITTAL LETTER FOR RESPONSE/AMENDMENT

Sir:

Transmitted herewith is/are the following in the above-identified application:

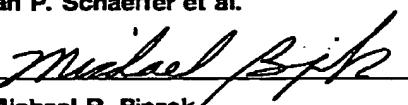
(X) Response/Amendment	( ) Petition to extend time to respond
( ) New fee as calculated below	( ) Supplemental Declaration
(X) No additional fee	
( ) Other: _____	(fee \$ _____)

CLAIMS AS AMENDED BY OTHER THAN A SMALL ENTITY						
(1) FOR	(2) CLAIMS REMAINING AFTER AMENDMENT	(3) NUMBER EXTRA	(4) HIGHEST NUMBER PREVIOUSLY PAID FOR	(5) PRESENT EXTRA	(6) RATE	(7) ADDITIONAL FEES
TOTAL CLAIMS	14	MINUS	20	= 0	X \$50	\$ 0
INDEP. CLAIMS	1	MINUS	3	= 0	X \$200	\$ 0
[ ] FIRST PRESENTATION OF A MULTIPLE DEPENDENT CLAIM					+ \$360	\$ 0
EXTENSION FEE	1ST MONTH \$120.00	2ND MONTH \$450.00	3RD MONTH \$1020.00	4TH MONTH \$1590.00		\$ 0
OTHER FEES						\$ 0
TOTAL ADDITIONAL FEE FOR THIS AMENDMENT						\$ 0

Charge \$ 0 to Deposit Account 08-2025. At any time during the pendency of this application, please charge any fees required or credit any overpayment to Deposit Account 08-2025 pursuant to 37 CFR 1.25. Additionally please charge any fees to Deposit Account 08-2025 under 37 CFR 1.16, 1.17, 1.19, 1.20 and 1.21. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

Ian P. Schaeffer et al.

By 

Michael R. Binzak

Attorney/Agent for Applicant(s)  
Reg. No. 38,081

Date: Aug. 31, 2005

AUG 31 2005

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Ian P. Shaeffer et al. Examiner: Jonathan J. Johnson  
Serial No.: 10/654,177 Group Art Unit: 1725  
Filed: September 3, 2003 Docket No.: 10002500-2 (H300.146.102)  
Due Date: September 4, 2005  
Title: A METHOD OF FABRICATING A SUBSTANTIALLY ZERO SIGNAL  
DEGRADATION ELECTRICAL CONNECTION ON A PRINTED  
CIRCUIT BOARD

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**RESPONSE TO ELECTION REQUIREMENT**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This is responsive to the Office Action mailed August 4, 2005, in which an Election Requirement was set forth relative to the Examiner-identified inventions of Group I (claims 16, 17, 26, and 27), Group II (claims 22 and 23), and Group III (claims 18-21, 28, and 29). In response, Applicant hereby elects Group III (claims 18-21, 28, and 29) in addition to generic claims 14 and 15 with traverse for at least the reasons provided below.

The Examiner contends that the method of Group I (claims 16, 17, 26, and 27) drawn to the third opening in the stencil is a patentably distinct species from the method of Group II (claims 22-23) drawn to edge separation and from the method of Group III (claims 18-21, 28, and 29) drawn to placing a stencil. However, due to the existence of many similar claim limitations, it is respectfully submitted that no undue burden exists to examine all Groups.

As examples of similarity between claims, claim 16 of Group I is compared to claim 28 of Group III. Dependent claim 16 depends from claim 14 and includes the limitation of placing a stencil on the first surface of the dielectric structure, the stencil defining a first opening sized to substantially correspond to the first conducting pad, a second opening sized to substantially correspond to the second conducting pad, and a third opening that links the first opening to the second opening and is sized to correspond to a partial portion of the surface area of the first surface between the edges of the first and second conducting pads. Similarly, dependent claim 28 also depends from claim 14 and includes the limitation of

**Response to Election Requirement**

Applicant: Ian P. Schaeffer et al.

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placing a stencil on the first surface of the dielectric structure core, the stencil defining an opening sized to correspond to a portion of the first conducting pad, a portion of the second conducting pad and a portion of the surface area of the first surface of the dielectric structure core between the edges of the first and second conducting pads. Both claims also include the step of applying solder paste onto the stencil. In comparing claim 17 of Group I to claim 29 of Group III, it is noted that claims 17 and 29 are identical to each other, other than claim 17 depends from claim 16 and claim 29 depends from claim 28.

With reference to claims 22 and 23 of Group II, these claims add a single limitation regarding separation distances between the first and second conducting pads.

As required by MPEP, if the search and examination of an entire application can be made without serious burden, the application must be examined on the merits, even though the application includes claims directed towards independent or distinct inventions (MPEP §803). Thus, it is respectfully requested that the Election Requirement be withdrawn and all claims examined.

The Examiner is invited to contact the Applicant's representative at the below-listed telephone numbers to facilitate prosecution of this application.

Any inquiry regarding this Amendment and Response should be directed to either Michael R. Binzak at Telephone No. (612) 573-0427, Facsimile No. (612) 573-2005 or to David A. Plettner at Telephone No. (408) 447-3013, Facsimile No. (408) 447-0854. In addition, all correspondence should continue to be directed to the following address:

**Response to Election Requirement**

Applicant: Ian P. Schaeffer et al.

Serial No.: 10/654,177

Filed: September 3, 2003

Docket No.: 10002500-2

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Intellectual Property Administration  
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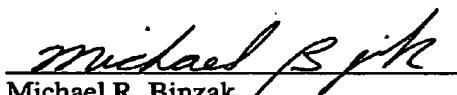
Respectfully submitted,

Ian P. Shaeffer et al.,

By their attorneys,

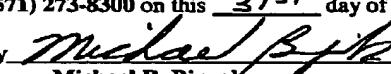
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100 South Fifth Street  
Minneapolis, MN 55402  
Telephone: (612) 573-0427  
Facsimile: (612) 573-2005

Date: August 31, 2005  
MRB:jmc

  
Michael R. Binzak  
Reg. No. 38,081

**CERTIFICATE UNDER 37 C.F.R. 1.8:**

The undersigned hereby certifies that this paper or papers, as described herein, are being transmitted via telefacsimile to Examiner Johnson, Group Art Unit 1725, at Fax No. (571) 273-8300 on this 31<sup>st</sup> day of August, 2005.

By   
Name: Michael R. Binzak